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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/866,722	05/30/2001	Gakuji Uozumi	107439-00041	9318

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EXAMINER

PHU, SANH D

ART UNIT	PAPER NUMBER
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2682

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/866,722	<b>Applicant(s)</b> UOZUMI, GAKUJI	
	<b>Examiner</b> Sanh D Phu	<b>Art Unit</b> 2682	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 September 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on 9/9/04.

#### *Claim Rejections – 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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3. Claims 1, 2, 6, 9 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Beigel et al (6,472,975), newly-cited.

–Regarding to claim 1, see figure 1 and col. 3, line 25 to col. 4, line 60, Beigel et al discloses a system comprising:

an antenna element (5); and

a capacitor (9) which is connected in series to said antenna element and having a variable capacitance to maintain the resonance frequency of the antenna device at the predetermined value (see col. 3, lines 55–65).

–Regarding to claim 2, Beigel et al discloses that said capacitance of said capacitor is made variable by switching a switch (15) (see col. 3, lines 55–65).

–Regarding to claim 6, said switch is a switch which is controlled by a control circuit (15, 17) for detecting a deviation of said resonance frequency and controlling said resonance frequency to a predetermined frequency (see figure 1).

–Regarding to claim 9, in Beigel et al, an allowable communication distance can inherently be ensured by varying a drive voltage across (9, 4, 5) of

said antenna device due to the process of tuning means (5, 9) by means(15) to maintain peak signals at said resonant frequency.

–Regarding to claim 12, Beigel et al discloses a control circuit (15, 17) (see figure 1) for controlling an amount of capacitance in order to maintain the resonance frequency of the antenna device at the predetermined value.

***Claim Rejections – 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3–5, 7, 8, 10, 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beigel et al in view of Suga et al (6,321,067), previously cited.

–Regarding to claim 3, see figure 1 and col. 3, line 25 to col. 4, line 60, Beigel et al discloses a system comprising:

an antenna coil (5) having a variable inductance to maintain the resonance frequency of the antenna device (5, 9) at the predetermined value (see col. 3, lines 55–65).

Beigel et al does not disclose that the antenna coil has taps, which are switched from one to another.

Suga et al teaches that an antenna coil (26) can be implemented with taps (T1, T2, T3) which are switched from one to another to vary the inductance of the antenna coil (see figure 9a, and col. 11, lines 50–56).

Since Beigel et al does not disclose how the antenna coil (5) is implemented to have the variable inductance, for an application of implement the antenna coil, it would have been obvious for a person skilled in the art, when building or carrying out Beigel et al invention, upon his design preference and within his skills, to implement the antenna coil with taps, as taught by Suga et al, which are switched from one to another in order to obtain said variable inductance, without affecting the overall system performance.

–Regarding to claim 5, Persson et al, in view of Suga et al, discloses that said taps are converted by switching a switch (30) (see Suga et al, figure 9a).

–Regarding to claim 10, Beigel et al in view of Suga et al discloses that said switch is capable of being controlled by a control circuit for detecting a deviation of said resonant frequency and controlling said resonant frequency to a predetermined frequency (see Beigel et al, col. 3, lines 55–65).

–Claim 11 is rejected with similar reasons set forth for claim 9.

–Regarding to claims 4 and 7, see figure 1 and col. 3, line 25 to col. 4, line 60, Beigel et al discloses a system comprising:

an antenna coil (5) having a variable inductance to maintain the resonance frequency of the antenna device (5, 9) at the predetermined value (see col. 3, lines 55–65).

Beigel et al does not disclose that the antenna coil comprises a coil and an inductor, being connected serially with said coil and having taps, which are switched from one to another.

Suga et al teaches that an antenna coil (26) can be implemented a coil (T1) and an inductor (T2, T3), being connected serially with said coil and having taps (T2, T3) which are switched from one to another to vary the inductance of the antenna coil (see figure 9a, and col. 11, lines 50–56).

Since Beigel et al does not disclose how the antenna coil (5) is implemented to have the variable inductance, for an application of implement the antenna coil, it would have been obvious for a person skilled in the art, when building or carrying out Beigel et al invention, upon his design preference and within his skills, to implement the antenna coil with a coil and an inductor, being connected serially with said coil and having taps, as taught by Suga et al, which are switched from one to another in order to obtain said variable inductance, without affecting the overall system performance.

–Regarding to claim 13, Beigel et al in view of Suga et al discloses a control circuit (17, 15) for controlling an amount of inductance of the inductor in order to maintain the resonant frequency of the antenna device at the predetermined value (see Beigel et al, figure 1).

–Claim 8 is rejected with similar reasons set forth for claims 10 and 13.

– Claim 14 is rejected with similar reasons set forth for claim 13.

### ***Response to Arguments***

6. Applicant's arguments filed on 9/9/04 have been considered but are moot in view of the new ground(s) of rejection.



*Conclusion*

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanh D Phu whose telephone number is (703) 305-8635. The examiner can normally be reached on 8:00-16:30.


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The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-8635.

Sanh D. Phu  
Examiner  
Art Unit 2682

SP



LEE NGUYEN  
PRIMARY EXAMINER